

ABSTRACT

The present invention provides a CMOS area image sensor that makes it possible to prevent or reduce at least image quality degradation based on an inappropriate brightness distribution that is produced in the pickup image and image degradation based on image distortion that is produced in the pickup image to obtain a high-quality pickup image. A plurality of pixels arranged in a lattice shape on the imaging face of the CMOS area image sensor are constituted by a photodiode 10, a select transistor TRs for outputting accumulated electrical charge resulting from exposure from the photodiode 10, an electrical charge holding circuit comprising a capacitor C for temporarily holding the accumulated electrical charge from the photodiode 10 and a transfer transistor TRt for controlling the transfer of the accumulated electrical charge to the capacitor C; and a reset transistor TRr for discharging the residual electrical charge of the capacitor C. The level of an inappropriate photoelectric conversion signal of each pixel arising from a non-uniform transmissive light amount distribution to the imaging face of the imaging optical system as a result of the photoelectric conversion signal that is outputted by each pixel being multiplied by a vertical correction coefficient that is preset for each row and a horizontal correction coefficient that is preset for each column is corrected.